Session 3B and 4B: Making Assessment Decisions: Combining Multiple Types of Data

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Michigan's Assessment Methodology

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The Michigan Department of Environmental Quality (MDEQ) follows the principle of independent applicability when evaluating attainment of designated uses. Many data sources are used, including water quality indicators; fish consumption advisories; fish kills; chemical spills; predictive models; and information from other agencies. When evaluating data, factors such as quality, quantity, duration/frequency, representativeness, and contextual information are considered. In Michigan, chemical and pathogen criteria are written into law, while biological data are incorporated into assessments through narrative standards. A variety of chemical, physical, and biological parameters are used to evaluate the full suite of designated uses. The independent applicability approach has advantages and disadvantages when compared to the weight of evidence approach. Advantages of independent applicability are that the approach likely provides additional protection, results in less controversial decisions, and stimulates broadbased monitoring. Disadvantages include less flexibility in listing decisions, difficulty accounting for site-specific conditions, adherence to out-dated criteria, and diversion of resources to waters without real problems.

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